



METAMORPHOSIS – FROM “QUICK-WIN” TO “PERMANENT-WIN”

Customer:

Gust. Alberts GmbH & Co. KG

Project:

Inventory optimization

Abels & Kemmner
Gesellschaft für Unternehmensberatung mbH

Kaiserstr. 100
52134 Herzogenrath

Contact

✉ ak@ak-online.de
☎ +49 (0) 2407 9565-0
🌐 www.ak-online.de

With suitable short-term measures that specifically attack the strongest inventory drivers, large inventory reduction effects can be achieved very quickly. Wins but not to fizzle out again just as quickly, additional sustainable measures must be taken to ensure that inventory structures are permanently optimally aligned. Together with Abels & Kemmner, GAH Alberts managed to drastically reduce inventories, starting with short-term measures. Afterwards, an optimized planning and scheduling system developed in parallel led to permanently low inventories.

In order to make planning and scheduling even more efficient, GAH Alberts started a project in January 2009, the first step of which was to quickly reduce the inventory. Only after this first Quick-Win. In the next step, the systematic and sustainable reduction of inventories was implemented. The advantage of this strategy is that with Quick-Wins quickly creates liquidity and only then has to implement sustainability.

What Quick-Win does not mean

The term Quick-Win. This may sound a little like starting the crop mower, setting the cutting height and then driving blindly over the crops. However, this is not what we mean, because after initial successes they very quickly lead to a later "quick loss":

ABOVE

Gust. Alberts GmbH & Co. KG operates internationally with around 430 employees at five locations. In Germany, Europe and the world, GAH-Alberts has now developed into a successful and constantly expanding system provider for trade, crafts and industry in its fifth generation.

Innovative products and ideas for the home and garden, with which new things can be achieved and tried and tested made even better. What began in 1852 as a locksmith's shop in the heart of the Sauerland region now includes a range of well over 7,000 items in the do-it-yourself segment. The products can therefore be found in almost every hardware store and specialist retailer.

www.gah.de

Some items continue to have excess stocks after such actions, while others lose the desired availability so quickly that you don't have to wait long for the justified reactions of customers. Even completely changing the planning and replenishment strategy from one day to the next is not a suitable Quick-Win-Strategy, because you cannot or should not turn such a large wheel without the right concepts and development of the appropriate strategies. Attempting to do this would certainly lead to major problems in planning and implementation and generate a multitude of unforeseen negative effects. Brute methods are therefore not meant.

What Quick-Win means

Really meaningful measures to achieve Quick-Wins are characterized by the fact that they essentially take place in the existing planning and logistics environment. They are not subject to rolling, recurring optimization and are therefore more static actions with a one-off character. Nevertheless, the potential to be exploited is identified systematically and in a well-structured manner, the steps to be taken are carefully worked out and the effects of the actions are regularly checked. The goal is, by definition, to achieve economic success quickly.

Why Quick-Wins not enough

If you have quick Wins. It is crucial that the first quick successes are supported by sustainable measures in order to have the optimal inventory structure in the warehouse to achieve the desired delivery readiness, not just today but at all times. This conversion from quick to permanent Win. GAH Alberts has now completed this and the results far exceed the goals envisaged at the start of the project.

The Quick-Win Measures

After a rough overview of the processes, initial simulations and carrying out inventory driver workshops, a set of measures was defined that should lead to a significant reduction in inventories in the short term. To identify the right measures, indications from so-called inventory driver workshops and inventory simulations were primarily used.

The simulations showed the top 100 items with potential for inventory reduction. These were then examined in detail to determine the causes of inventory, some were reorganized or even reduced through appropriate use. In addition, the following measures were implemented:

- Introducing zero parts (no consumption for at least 12 months) into a structured use or recycling process
- Reduction of reporting stocks with a MB turnover $< x$
- Reduction of safety stocks with a self-service envelope $< x$
- Reduction of batch sizes with a LG turnover $< x$, focusing on packaging units and, where possible, setting an exact batch size
- Stop restocking of items with
Inventory range $>$ replenishment time $\cdot x$ and inventory value $> y$ €
- Correction of preliminary plan values where the plan quality deviates significantly (average deviation between planned and actual quantity)
- Checking open orders for planning necessity, cancellation or postponement if necessary
- Reduction of demand lead times in the system
- Distribution of monthly requirements into weekly requirements

The items identified according to the above criteria formed action lists that were given to the employees of the relevant departments, e.g. scheduling, sales or purchasing, for processing. In intensive workshops with Abels & Kemmner, a large number of items were discussed directly on the ERP system and the further handling of the items was determined.

Result of the efforts to achieve Quick-Wins was that after about 4 months, stocks had already fallen by more than 13%, while the willingness to deliver had not diminished.

Permanent-Wins in the optimized planning environment

While the short-term measures were still having an effect, the permanent Win. A concept for optimizing planning and scheduling, including the system-supported rolling setting of all relevant scheduling parameters, was developed. The concept envisaged switching from the previously pursued push strategy in replenishment to a pulling strategy wherever possible. Previously, preliminary planning values were entered into the system twice a year, which then had a scheduling effect. In future, a large part of the range of items will be planned and scheduled based on consumption. However, since new planning is now carried out on a rolling basis every month, decisions must of course also be made monthly as to which items are suitable for consumption control, which scheduling feature they should be given, how the relevant parameters, e.g. safety and reorder point, should be dimensioned for them, or the target delivery readiness level to be set. These decisions are made for the planner by a set of rules that has been mapped out in the ERP optimization system DISCOVER. The set of rules checks the parameter settings in the ERP system every day and adjusts them automatically. The set of rules takes the following information into account, among others:

- ABC license plate
- XYZ license plate
- life cycle label (ELAN)
- material type
- special license plate storage life
- length of consumption history

Since events can occur at any time, not just at the end of the month when rolling planning is carried out, which can affect the need for pre-production and the reorder point, the sales staff are required to enter such information into the system in an event-driven and therefore prompt manner. Typical events in this area are promotions or new or lost customers with significantly high purchase quantities. In such cases, the sales department should make absolute and/or percentage corrections to the forecasts created by the system in the sense of exception planning.



Image: Simulation delivers reliable results

Since each sales employee carries out this activity for themselves in relation to their trading partners, the corrections are then aggregated at article level and then processed further. Closed Loop between DISCOVER and SAP, which is run every night, ensures that all special events in sales planning are taken into account, which means that statistical forecasts and relevant sales information to form an effective sales plan.

When calculating the reorder points on a rolling basis, the special task arises that not only the strong seasonal business but also the necessary pre-production due to limited capacities must be taken into account.

Determination of prefabrication requirements

If, as is the case at GAH Alberts, you have to pre-manufacture for the new season months in advance, you are faced with a very special problem: the time of sale is still a long way off, but you still have to decide which products to produce in full specification and put into storage. In accordance with the trumpet effect, which states that forecasts for the distant future are more uncertain than those for the near future, the risk of producing the wrong materials or the wrong quantities is of course significantly higher. If you fail to solve this problem, you will jeopardize the optimal inventory structure and the desired delivery readiness.

At GAH Alberts, the decision as to which items should be prioritized in production in which quantities is based on the ABC/XYZ classification of items. The basic idea is to prioritize regularly produced items first, as these have a lower risk of becoming slow-selling items. The order is from A to C and X to Y, i.e. AX items first, then BX items, etc. Only X and Y items should be prioritized automatically, not Z1 or Z2 parts that have very sporadic consumption characteristics. If the bottleneck situation is not resolved, a warning should be issued and the planner must intervene manually.

In addition, a "pre-production factor" is used. This indicates how much of the quantity to be produced can be pre-produced. This factor is item-specific and can also be used to ensure that certain items are not pre-manufactured at all.

An article can pass through several bottlenecks in succession. This means that one bottleneck, with its pre-production, influences the capacity utilization of the other. This situation must therefore be resolved iteratively for all bottlenecks.

Setting the optimal parameters

The corrected production situation is then used to determine corrected reorder levels so that the planned pre-production can be implemented operationally even for consumption-controlled items. The reorder levels are increased earlier than determined by the ERP system with a calculated lead time. The result is that, contrary to the actual consumption situation, an increased reorder level triggers early replenishment. Along with other parameters, such as the MRP characteristic to be set, the reorder level is transferred to SAP, where it is then taken into account in day-to-day business. SAP can therefore generate planned orders and purchase requisitions at any time based on optimally set parameters that deliver the right material at the right time in the right quantity.

conclusion of the project

Gust. Alberts GmbH & Co. KG has managed to streamline processes, reduce costs and at the same time achieve the specified delivery readiness. New strategies and processes have been established in planning and scheduling, which, supplemented by significantly expanded system support, achieve the desired performance and planning quality.

About the realization of Quick-Wins and the rapid transfer to permanent Wins impressive results were achieved. After a 13% reduction in inventory in 4 months, after 9 months inventory had been reduced by 53%. To properly assess this achievement, we must recall the project objective, which was 30%, half of which in the first 12 months.

The permanent Win is underway

By changing the strategy from push to pull mechanisms and introducing rolling planning that processes forecast and sales information into production plans and optimized scheduling parameters, GAH Alberts has long since further optimized and automated the planning of the following season. The permanent Win is underway.

Sustainable inventory reduction despite seasonal business

The target was to reduce inventories by around 30%, half of which would be achieved this year.

After an inventory reduction of 13% in 4 months (Quick-Wins) inventories were reduced by 53% after 9 months.

The measures to achieve permanent Wins have again led to inventory reduction and significantly exceeded the set goals: The original project goal was achieved in 1/3 of the time. The overall goal was exceeded by almost 1.8 times.